

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1, 3-5, 7-21, 23-30 are pending in the application. Claims 1, 11, 19 and 27 have been amended. No claims have been added. No claims have been canceled.

The Examiner rejected claims 1, 3, 11-12, 19-20, 23-30 under 35 U.S.C. § 102(e) as being anticipated by Soltis, Jr. et al (U.S. 6,651,176).

Applicant respectfully disagrees.

Claim 1 is as follows:

A system comprising:

an execution pipeline;

a power delivery unit to provide power to the execution pipeline at a specified operating point, wherein the power delivery unit includes a clock gating circuit to control power delivery to one or more units of the execution pipeline, the clock gating circuit including a plurality of gating units that each control a clock signal to an associated unit in the execution pipeline and provide a signal indicative of the activity state of the associated unit that is being monitored for power consumption;

a digital throttle to estimate a power state, responsive to activity of the execution pipeline and the specified operating point, and to trigger a change in the operating point, responsive to the estimated power state reaching a first threshold. (emphasis added)

Applicant respectfully submits the present invention as claimed in Claim 1 that the requires a power delivery unit that includes a clock gating circuit to control power delivery, when the clock gating circuitry includes a plurality of gating units that each control a clock signal to an associated unit in the execution pipeline and provide a signal indicative of the activity state of the associated unit that is being monitored for power consumption. Applicant respectfully submits that this feature is not shown in Soltis.

As the Examiner indicated in the previous office action, Soltis does not explicitly disclose such a feature. However, the Examiner believes "inherently, some clock gating circuit in the

broadest interpretation is needed to control clock capacity with the LP-bits, requiring plural clock gate units pipeline with multiple executing stage units" to control power delivery. Applicant respectfully disagrees. Applicant respectfully submits that there is some sort of clock circuitry that is needed to provide a clock to reach the pipeline stages and admits that clock gating is a well-known in the art. However, Soltis does not disclose clock gating circuitry having plurality of gate units that control the clock signal to units in the execution and also provides signals that are indicative of the activity state of the associated unit that is having its power consumption level monitored.

Applicant respectfully submits that there is no inherent disclosure of this in Soltis. In view of this, Applicant respectfully submits the present invention as claimed is not anticipated by Soltis.

The Examiner rejected claims 4 and 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Soltis as applied to claim 3 above, and further in view of Dunstan et al (U.S. 5,694,607).

Applicant respectfully disagrees. As set forth above, the present invention as claimed sets forth a system with a power delivery unit that has a clock gating circuit that includes multiple gating units that each control a clock signal to an associated unit in the execution pipeline and each provide a signal indicative of the activity state of the associated unit that is having its power consumption level monitored. Soltis does not disclose this. Dunstan doesn't overcome these deficiencies. There is nothing in Dunstan that sets forth such a clock gating circuit with multiple gating units as claimed. In view of this, Applicant respectfully submits the present invention as claimed is not obvious in view of the combination of Soltis and Dunstan.

Accordingly, Applicant respectfully submits that the rejection under 35 U.S.C. § 103(a) has been overcome by the amendments and the remarks. Applicant submits that claims 4 and 7-9 as amended are now in condition for allowance and such action is earnestly solicited.

Accordingly, Applicants respectfully submit that the objections to the claims and the abstract have been overcome by the amendments and the remarks and withdrawal of these rejections is respectfully requested. Applicants submit that Claims 1, 3-5, 7-21, 23-30 as amended are in condition for allowance and such action is earnestly solicited.

If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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